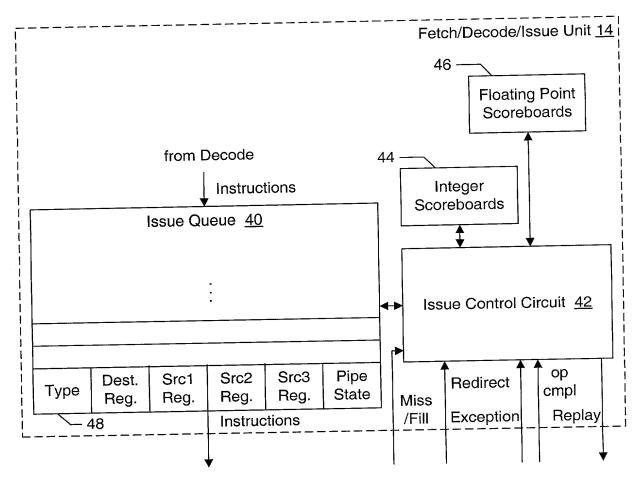




FIG. 1



to Integer Units 22A-22B, FPUs 24A-24B, and L/S Units 26A-26B

FIG. 2

 თ				Ex2 (Add)	
8			Wr	Ex1 (Add)	
7 (Grad.) 	Grad.	Grad.	Ex4	Ex4 (Mul) RR (Add)	
<u> </u>			EX3	Ex3 (Mul)	
ည		W	Ex2	Ex2 (Mul)	
4 (Replay)	Wr	Exe	EX 1	Ex1 (Mul)	
ິ _ ຄ	Cache	RR	H.	ЯЯ	
α _	11.8	Skew2	Skew2	Skew2	
-	AGen	Skew1	Skew1	Skew1	
0 (Issue)	Issue	Issue	lssue	Issue	
_	L/S Pipes	Int. Pipes	FP Pipes	FP Madd	

FIG. 3

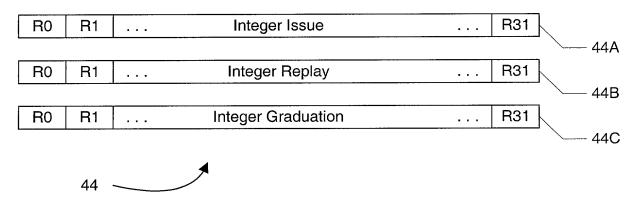


FIG. 4

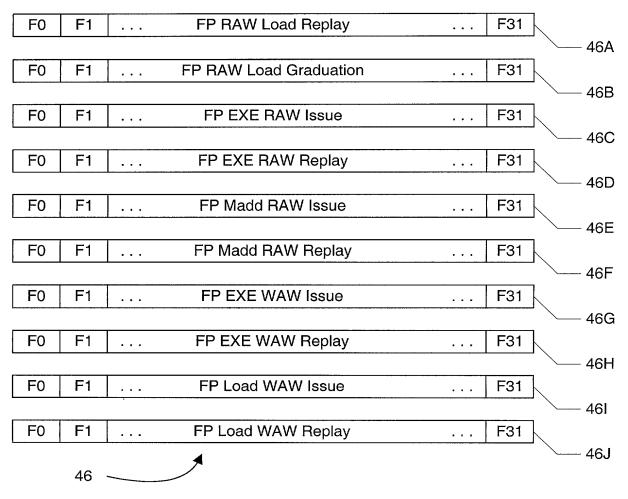


FIG. 5

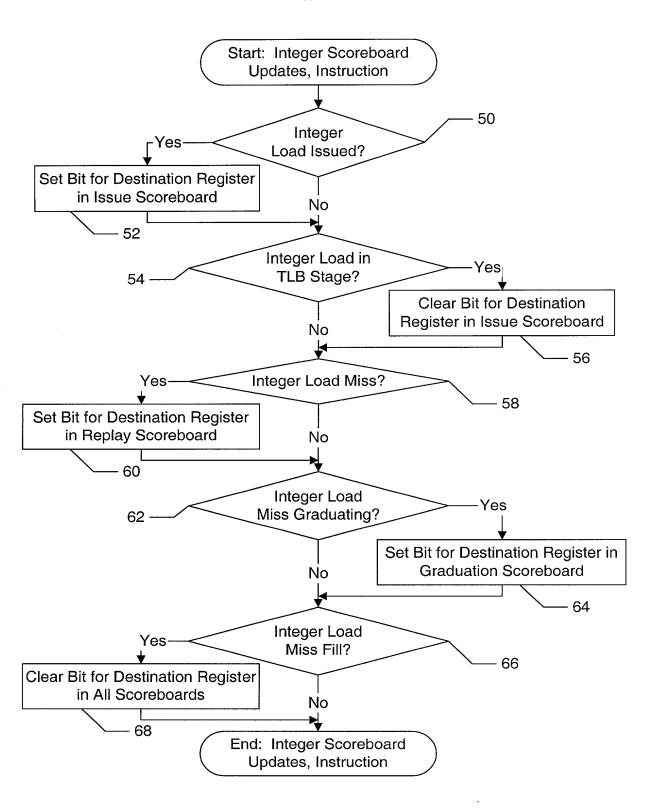


FIG. 6

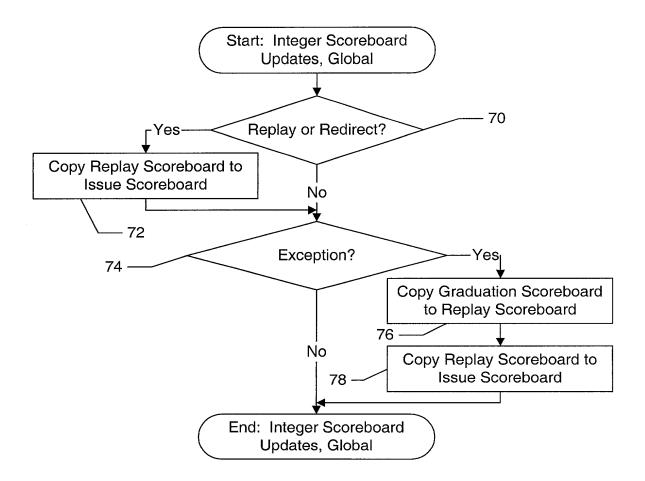


FIG. 7

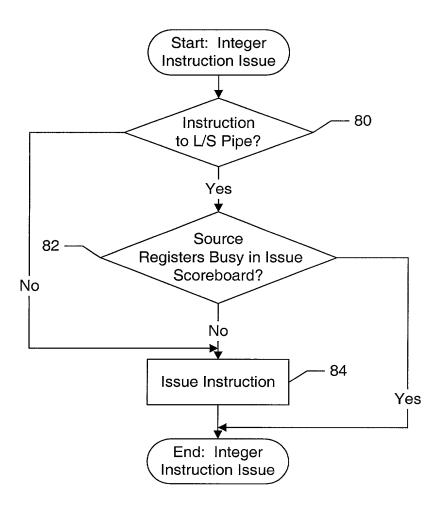


FIG. 8

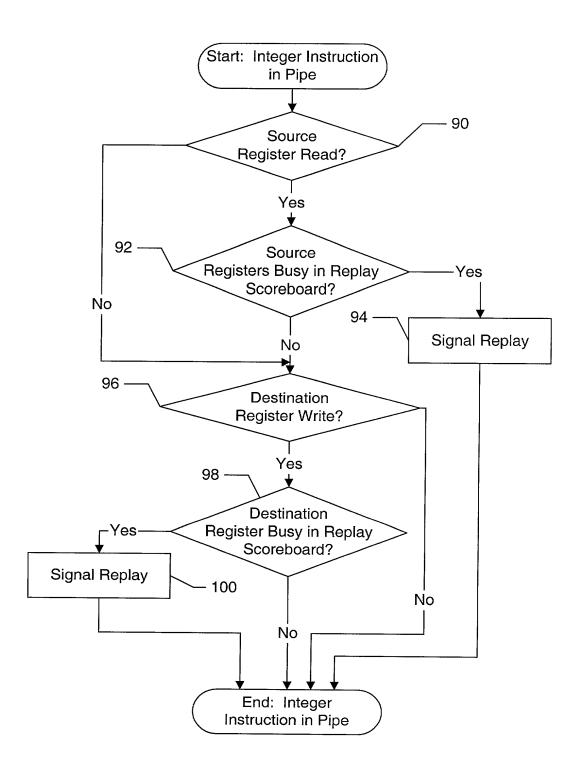


FIG. 9

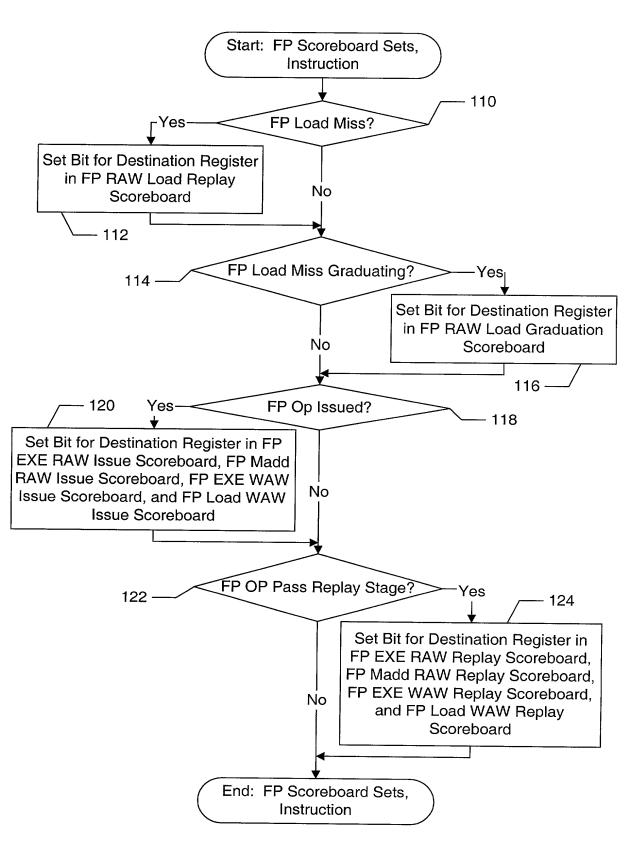
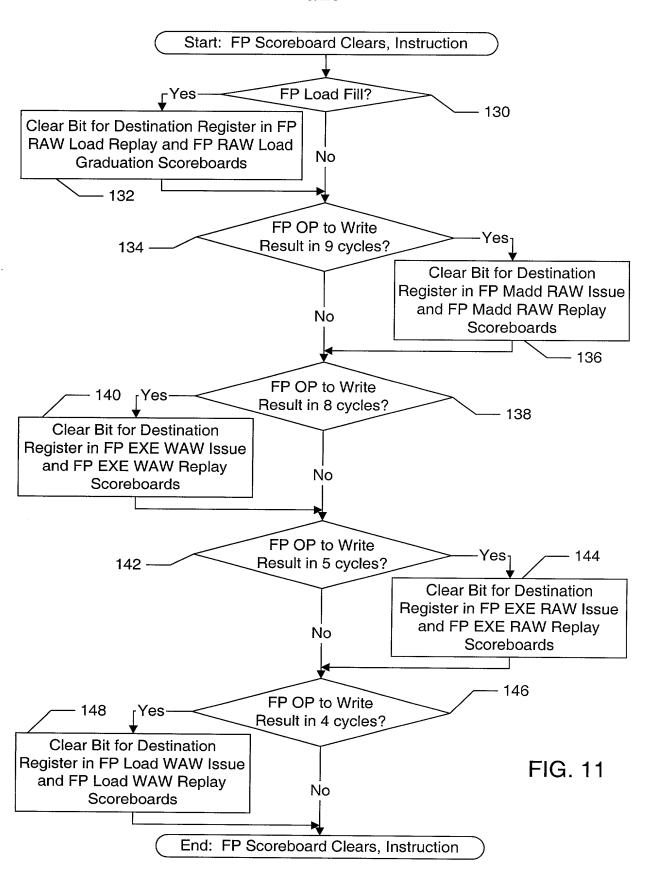


FIG. 10



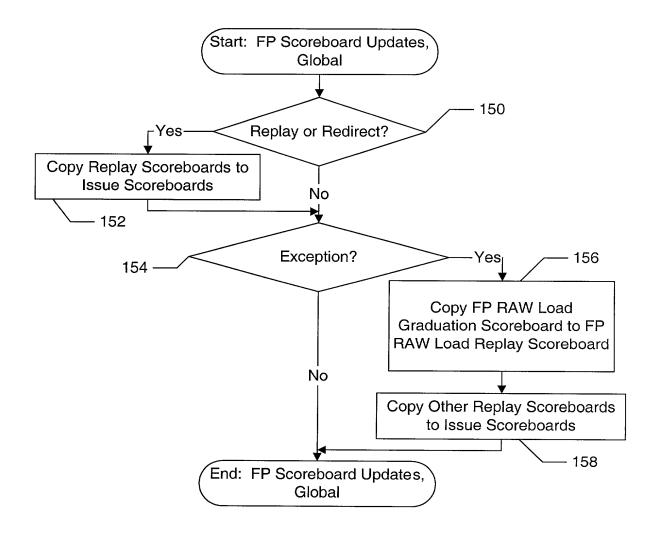


FIG. 12

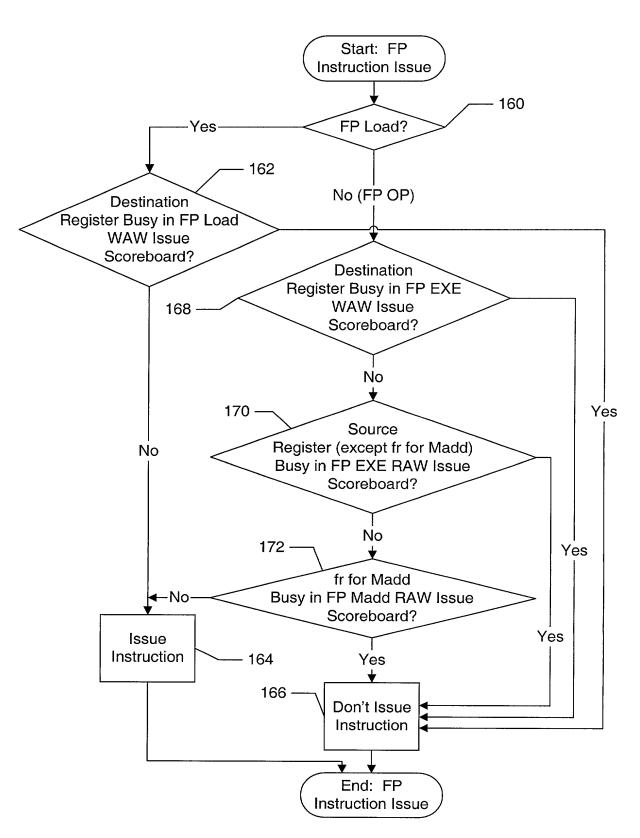
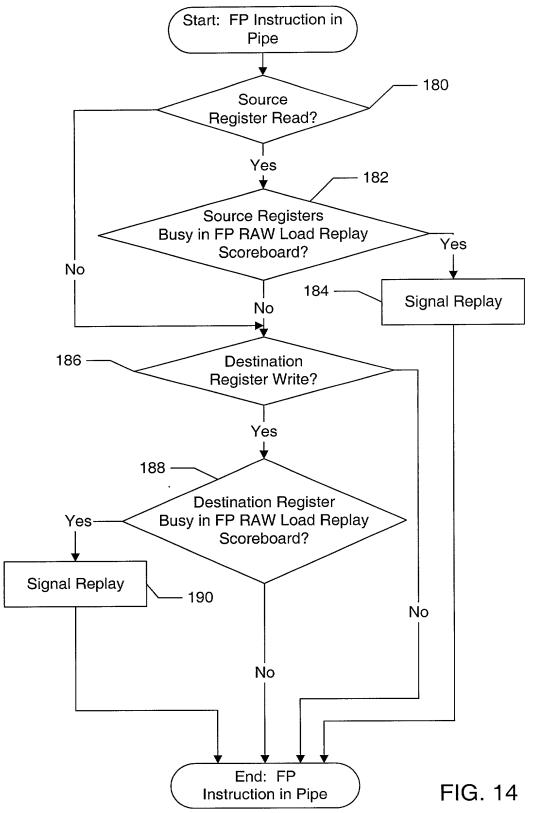


FIG. 13



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6+N	Wr	W
8+ N	ExN+8	Ex4 RR (fr)
N+7	ExN+7	EX3
9+ N	ExN+6 W bit	EX2
N+5	ExN+4 ExN+5 ExN Clear FP Madd RAW bit	Ä
N + 4	ExN+4 Clear FP	æ æ
N+3	ExN+3	Skew2
N+2	ExN+2	Skew1
Z + +	ExN+1	Issue
z	EX	
	FP OP	Dep Madd Op (on fr)

FIG. 15

Ž C		W
6+N	W	## ## ## ## ## ## ## ## ## ## ## ## ##
8+ N	ExN+8	EX3
N+7	ExN+7	EX 5
N+6	ExN+6 W bit	EX T
S+ N+	ExN+4 ExN+5 ExN Clear FP EXE WAW bit	R.
N ++	ExN+4 Clear FR	Skew2
N+3	ExN+3	Skew1
N+2	ExN+2	Issue
N +1	ExN+1	—
Z	Z Z	
	FP OP	Dep FP Op (WAW)

FIG. 16

_			
6 + N	×		<u> </u>
N+8	ExN+8	AAW bit	## H
N+7	ExN+7	Clear FP EXE RAW bit	Skew2
N+6	E×N+6	Clea	Skew1
N+5	ExN+5		Issue
A+N	ExN+4		—
8 +3	ExN+3		
N+2	ExN+2		
N + 1+	EXN+1		
Z	EX		
	FP OP		Dep FP Op (RAW)

FIG. 17

6+ Z		×
8 + Z	Wr	Cache
N+7	Ex4 WAW bit	TLB
9+N	x2 Ex3 Ex4	AGen
N+5	Ex2 Olear	Issue
N+4	EX.	
N+3	RR	
N+2	Skew2	
Z + +	Skew1	
z	Issue	
	FP 0P	Dep Ld (WAW)

FIG. 18

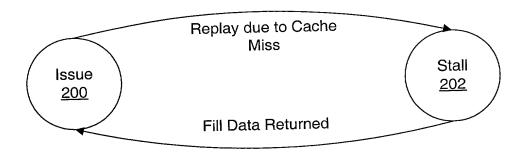


FIG. 19

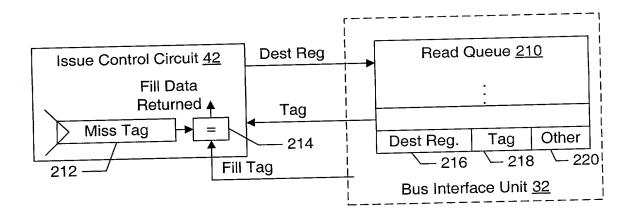


FIG. 20

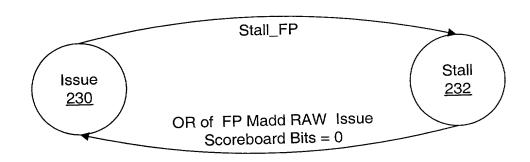
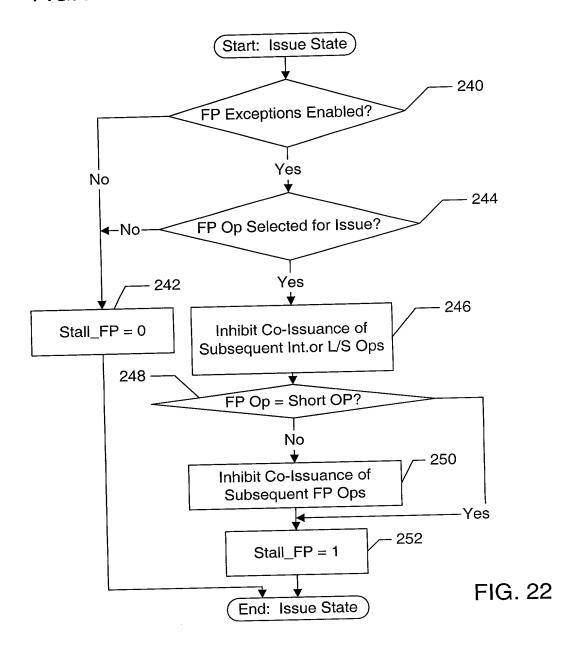


FIG. 21



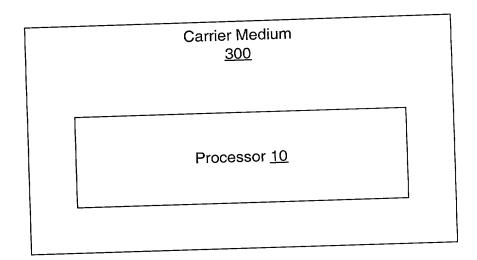


FIG. 23